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Docket No. F-8521

Ser. No. 10/519,696

AMENDMENTS TO THE CLAIMS:

Please replace the claims with the claims provided in the listing below wherein status, amendments, additions and cancellations are indicated.

1. (Currently Amended) Method for synthesizing endohedral fullerenes in an arc reactor, comprising:

providing an atmosphere to said reactor; and

burning off graphite electrodes in said atmosphere, wherein said atmosphere comprises an inert gas or gas mixture and with a reactive gas component, said reactive gas component comprising at least two elements.

2. (Currently Amended) The method of claim 1, wherein the atmosphere comprises ~~inert gas or the inert gas mixture includes~~ 5% by volume to 60% by volume of the reactive gas component.

3. (Currently Amended) The method of claim 1, wherein the atmosphere comprises ~~inert gas or the inert gas mixture includes~~ 5% by volume to 10% by volume of the reactive gas component.

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4. (Currently Amended) The method of claim 1, wherein the ~~atmosphere inert gas or inert gas mixture includes~~ comprises a nitrogen-containing or carbon-containing reactive gas component.

5. (Previously Presented) The method of claim 1, wherein the reactive gas component includes ammonia or methane or other hydrocarbons.

6. (Previously Presented) The method of claim 1, wherein the reactive gas component is supplied to the arc reactor from outside during the burning off or is generated in the arc reactor.

7. (Currently Amended) The method of claim 1, wherein the graphite electrodes comprise ~~are used which are modified with~~ metal or metal oxides.

8. (Currently Amended) The method of claim 7, wherein the graphite electrodes comprise ~~which are used are modified with~~ holmium or scandium or the oxides of holmium or scandium. ~~their oxides.~~

9. (Currently Amended) The method of claim 1, wherein the graphite electrodes ~~which are used are modified with~~ comprise metal or metal oxides and a nitrogen-containing substance.

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10. (Currently Amended) Method for synthesizing endohedral fullerenes in an arc reactor, comprising:

providing an atmosphere to said reactor; and

burning off graphite electrodes in said atmosphere, wherein

said atmosphere comprises an inert gas or gas mixture and with a reactive gas component,

said reactive gas component comprises ~~comprising~~ at least two elements, and

the graphite electrodes comprise ~~which are used are modified with~~ metal cyanamide.

11. (Previously Presented) The method of claim 10, wherein the metal cyanamide comprises calcium cyanamide or lead cyanamide.

12. (Currently Amended) The method of claim 1, wherein the reactive gas component comprises ammonia. ~~inert gas or inert gas mixture includes an ammonia or carbon-containing reactive gas component.~~

13. (Currently Amended) The method of claim 1, wherein the reactive gas component comprises methane. ~~inert gas or inert gas mixture includes a carbon-containing reactive gas component.~~

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14. (Currently Amended) Method for synthesizing endohedral fullerenes in an arc reactor, comprising:

providing an atmosphere to said reactor; and

burning off graphite electrodes in said atmosphere, wherein said atmosphere comprises an inert gas or gas mixture and with a reactive gas portion, said reactive gas portion comprising ammonia or a carbon-containing component.

15. (Previously Presented) The method of claim 14, wherein said reactive gas portion comprises a carbon-containing component.

16. (Previously Presented) The method of claim 1, wherein the reactive gas component is generated in the arc reactor.

17. (New) The method according to claim 6, wherein the reactive gas component is a carbon-containing reactive gas component and wherein the reactive gas component is supplied to the arc reactor from outside during the burning off.

18. (New) The method according to claim 1, wherein the reactive gas component comprises a hydrocarbon.

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19. (New) The method of claim 14, wherein the reactive gas component comprises ammonia or methane or other hydrocarbons.

20. (New) The method of claim 14, wherein the reactive gas component comprises ammonia or methane.

21. (New) The method of claim 1, wherein the reactive gas component is a carbon-containing reactive gas component and the atmosphere comprises 5% by volume to 60% by volume of the carbon-containing reactive gas component.

22. (New) The method of claim 21, wherein the atmosphere comprises 5% by volume to 10% by volume of the carbon-containing reactive gas component.

23. (New) The method of claim 1, wherein the reactive gas component is ammonia and the atmosphere comprises 5% by volume to 60% by volume of ammonia.

24. (New) The method of claim 23, wherein the atmosphere comprises 5% by volume to 10% by volume of ammonia.